

Use of modified international council of ophthalmology- ophthalmology surgical competency assessment rubric (ICO- OSCAR) for phacoemulsification- wet lab training in residency program

I am writing this letter to discuss a very important issue that we face in Ophthalmology training in the current day scenario in our country. India is home to a quarter of the blind population of the world, but unfortunately, the number of trained ophthalmologists is lagging behind the current need.^[1,2] Our country needs 25,000–30,000 ophthalmologists till 2020, which means adding 300 training slots per year.^[1] This needs a major revamp of our residency system as the existing system is found to be inadequate in its current form.^[3]

Most of the residency programs are not focusing much on the surgical training of the residents. The International Council of Ophthalmology designed its Ophthalmology Surgical Competency Assessment Rubrics (ICO-OSCAR) to facilitate assessment and teaching of surgical skill.^[4] However, these are used during surgical training and cannot be used before that, during wet lab. We believe that wet lab training should be made mandatory for all residents before surgical training on actual eyes. To the best of our knowledge, there is no assessment tool currently being used for wet lab training. We propose the ICO-OSCAR tools be used for wet lab training and be made part of the teaching curriculum.

The ICO-OSCAR is used to evaluate surgeries,^[4,5] but we have modified it to be used in wet lab for Phacoemulsification training. The modified OSCAR can be found at https://drive.google.com/file/d/0B_sdV-PMylzyMm5fZXRIQVRGbzQ/view.

We ran a pilot study in one of the Educational Institutes in Trujillo, Peru, last year using this modified OSCAR tool. This study was done on an Orbis International Flying Eye Hospital program, where 12 3rd-year residents were trained in phacoemulsification, in the wet lab, by a certified trainer from the United States. The 3rd-year residents were already doing phacoemulsification and had done a minimum of 20 phacoemulsification surgeries before this wet lab training. The trainer was a long-term volunteer faculty with Orbis International and had done several instruction courses on Orbis programs and is the residency director of the ophthalmology-training program at her institute. The training exercise was held over 5 days. 1st day, the residents were trained in wound construction, 2nd day on capsulorrhexis and hydroprocedures, 3rd and 4th day on phacoemulsification technique, and 5th day on intraocular lens insertion and wound closure. The training also had 11 didactic lectures.

Participating ophthalmologists were asked to complete an evaluation sheet (modified OSCAR) before starting the wet lab. The evaluation sheet had 22 questions to assess areas covered during training under various categories. Trainees completed the same evaluation sheet after the wet lab as well. A similar evaluation sheet was completed by the trainer for each trainee, and discussion was held at the end of the day between the trainer and the trainee evaluating the day's session.

We found that the trainer's scores did not match that of the trainee's self-assessment scores for most of the task. The trainer's and trainee's scores matched more closely in the following skills – instrument handling ($P = 0.9$), wound construction ($P = 0.655$), and phacodynamics ($P = 0.334$). There was discrepancy between both scores in capsulorrhexis ($P = 0.003$), hydrodissection ($P = 0.003$), and irrigation/aspiration ($P = 0.003$).

From this exercise, we learned that modified OSCAR offers a reliable way to objectively assess the surgical skills acquired during wet lab training. We saw that trainees tend to overestimate their skills. The tool is useful to develop self-awareness among trainees and to identify gaps, lead active continuous professional development plan, and eventually improve their surgical skills. Such modified OSCAR tools can be developed for other surgical wet labs also, and we should find a way to integrate this in our residency curriculum.

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Conflicts of interest

There are no conflicts of interest.

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